

**REMARKS**

Applicant recognizes with appreciation that Claims 7 and 8 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2<sup>nd</sup> paragraph and to include all of the limitations of the base claim and any intervening claims. Claims 16 and 18 would be allowable if rewritten to independent form including all of the limitations of the base claim and any intervening claims.

In this Amendment, Applicant has cancelled Claims 1 – 3, 5 – 6, 9 – 15 and 17 and amended Claims 4, 7, 8, 16 and 18. Claims 4, 7, 8, 16 and 18 have been amended to specify different embodiments of the present invention and overcome the rejection. It is respectfully submitted that no new matter has been introduced by the amended claims. All claims are now present for examination and favorable reconsideration is respectfully requested in view of the preceding amendments and the following comments.

**SPECIFICATION:**

The title has been objected as containing informalities.

It is respectfully submitted that the informalities have been overcome. The title has been amended to “Low Intermediate Frequency Type System.” It is respectfully submitted that no new matters have been introduced by the amendment.

Therefore, the objection to the title has been overcome. Withdrawal of the objection is respectfully requested.

**REJECTIONS UNDER 35 U.S.C. § 112 SECOND PARAPGRAPH:**

Claim 1 has been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is respectfully submitted that the currently presented amendments clearly point out and define the embodiment of the present invention. More specifically, Claim 1 has been cancelled. The rejection is moot. In addition, Claims 4, 7 and 8, which are rewritten into independent claims and included the features of cancelled Claim 1 has included the feature of “a rate-converted broad band signal” instead of “the rate-converted broad band signal” in the cancelled Claim 1.

Therefore, the rejection under 35 U.S.C. § 112, second paragraph, has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, second paragraph, is respectfully requested.

**REJECTIONS UNDER 35 U.S.C. § 102:**

Claims 1 – 6, 9 – 12, 15 and 17 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Suominen (US Pat. No. 6,427,068).

Applicant traverses the rejection and respectfully submits that the presently claimed invention is not anticipated by the cited reference. More specifically, Claims 1 – 3, 5 – 6, 9 – 15 and 17 have been cancelled. The rejection to these claims is moot.

In addition, Claim 4 has been rewritten into independent form to include all of the limitations of the base claim and any intervening claims. Regarding Claim 4, the Examiner indicated that “Suominen further discloses a second and third frequency conversion section.” According to Suominen, “The complex exponential signal is supplied by a digital quadrature local oscillator 68 and mixed with the complex signals by digital mixer 70. The complex signals are then filtered and decimated at a decimation rate of M=2 by filters 72, 74 matched to the pulse of the desired signal” and “the sampling frequency has been reduced.” (see col. 14, line 46 through col. 15, line 4). However, Suominen does not disclose or suggest the third frequency conversion section which reduces the frequency removed the offset from the narrow signal with respect to the image-rejected signal.

Therefore, the newly presented claims are not anticipated by Suominen and the rejection under 35 U.S.C. § 102(e) has been overcome. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(e) is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103:

Claims 13 – 14 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Suominen in view of Hughes et al. (US Pat. No. 6,654,594).

Applicant traverses the rejection and respectfully submits that the embodiments of present-claimed invention are not obvious over Suominen in view of Hughes. More specifically, Claims 13 – 14 have been cancelled without prejudice or disclaimer. Therefore, the rejection is moot.

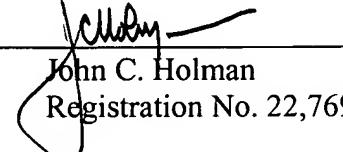
In summary, the newly presented claims are not obvious over Suominen in view of Hughes. The rejection under 35 U.S.C. § 103 has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 103 is respectfully requested.

Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

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